

## RULE 1141.2

### Surfactant Manufacturing

#### (a) Definitions

For the purpose of this rule the following definitions shall apply:

- (1) REACTIVE ORGANIC GASES (ROG) means any gaseous compound which contains the element carbon; excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates and metallic carbides; and excluding methane, 1,1,1-trichloroethane, methylene chloride, trifluoromethane and chlorinated-fluorinated hydrocarbons.
- (2) A SURFACTANT is a surface-active agent, which is any compound that reduces surface tension or interfacial tension, when in solution. Surfactants are divided into three categories: detergents, wetting agents, and emulsifiers.
- (3) A SURFACTANT MANUFACTURER is a person who produces a synthetic surfactant, most commonly by reacting an organic compound with a sulfonating or sulfating compound.
- (4) A VENT is a port or opening whose function is to allow gases to discharge to the atmosphere when leaving a reactor or other equipment.
- (5) A SURFACTANT REACTOR is any equipment in which organic and/or other materials are reacted to produce a surfactant; this may include stripping columns, condensers, and water separators.
- (6) A CONDENSER is a jacketed tube which has a cooling fluid, often water, flowing through the jacket and which cools and liquefies gases flowing through the inside of the tube.
- (7) A DEGASSER is any piece of equipment which removes dissolved gases from liquids.
- (8) A NEUTRALIZER is any piece of equipment in which materials are added to a liquid in order to change the acidity or alkalinity of the liquid.
- (9) A STRIPPER is any piece of equipment which removes a material from a mixture of materials.
- (10) A MINERALIZER is any piece of equipment in which minerals or chemicals, such as lime or iodine, are suspended in a surfactant.

- (11) SURFACTANT MANUFACTURING EQUIPMENT includes any or all of the following equipment: surfactant reactors, process condensers, degassers, neutralizers, strippers, and mineralizers.

(b) Requirements

After July 1, 1986 a surfactant manufacturer shall not produce surfactants unless:

- (1) the total emissions of reactive organic gases (ROG) from the surfactant manufacturing equipment, before being vented to the atmosphere, are reduced:
- (A) to 0.5 pound per 1000 pounds of surfactant produced, or
- (B) by 95 percent (wt) or more; and
- (2) all ports used for inspection, taking samples, or adding ingredients are closed when not in use.

(c) Compliance

- (1) A surfactant manufacturer shall:
- (A) On or before January 1, 1985, submit for District approval, a Compliance Plan describing the methods and equipment to be used to achieve compliance with subsection (b)(1)(A) or (b)(1)(B), and
- (B) On or before July 1, 1986, submit applications for new permits to construct or operate, as necessary, for new or modified equipment involved in such methods.
- (2) On or after July 1, 1986, a surfactant manufacturer shall operate under the approved conditions specified in the Compliance Plan for compliance with subsection (b)(1), and/or under conditions included in permits to construct or operate issued for applications submitted pursuant to subsection (c)(1)(B).

(d) Exemptions

The provisions of this rule shall not apply to:

- (1) Soap manufacturing operations,
- (2) Facilities that only blend and package surfactants,
- (3) Equipment that uses exclusively organic materials which have a vapor pressure less than 5 mm of Hg at 20<sup>o</sup>, and

- (4) Facilities that emit less than 5 pounds of ROG from surfactant manufacturing equipment in each and every day.

(e) Fees

For the purpose of determining the appropriate processing fees only, the filing of a Compliance Plan(s) as provided in subsection (c)(1) shall be considered the equivalent of filing an application for a permit. The person submitting the Plan shall be assessed a filing and an evaluation fee as described in Rules 301 and 301.1.

[SIP: Approved 1/15/87, 52 FR 1627, 40 CFR 52.220(c)(153)(vii)(A)]

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